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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,368	07/12/2003	Royal Jones	0342	6736

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Kevin Redmond
6960 SW Gator Trail
Palm City, FL 34990

EXAMINER

HUSBAND, SARAH E

ART UNIT PAPER NUMBER

1746

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,368

Applicant(s)

JONES, ROYAL

Examiner

Sarah E. Husband

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/14/2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the wheels and inlet and outlet ports of the venturi must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to under 37 CFR 1.84(h)(5) because Figure 1 show(s) modified forms of construction in the same view. The venturi having a flange (20), which is bolted to the tank bottom, is a different form than the venturi which moves by wheels (not shown).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “21” has been used to designate both wheels and the centerline (page 5). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Items 13, 19 and 21 are not described in the specification. The disclosure is also objected to because Item 12 which is described as a nozzle seems to be an attachment area for the venturi to the shunt (7) and it is unclear as to how the “nozzle” accepts water in this area while the shunt is supplying pressurized fluid to the venturi as described on page 4, last paragraph.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims use the word "its" to describe applicant's invention and are not considered proper form.

Claims 4 and 5 recite the limitation "said pool" in line 1 of each and claim 17 recites the limitation "said input port" in line 5. There is insufficient antecedent basis for these limitations in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Brooks (US Patent No. 4,839,063).

Brooks discloses an apparatus for cleaning liquid holding tanks which include at least sidewalls and a floor and wherein as a minimum both the surface of the liquid and the bottom of the tank are simultaneously cleaned, comprising a source of high pressure liquid, a venturi having a throat, an inlet port and an outlet port, said venturi being placed in said holding tank beneath the liquid in said tank and with said venturi outlet port forming the

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bottom of said venturi which faces generally downward towards the floor of said tank, a line for carrying liquid having a first end and a second end, said line being connected at its first end to said source of high pressure liquid, and a nozzle connected to said second end of said line for carrying liquid to receive the high pressure from said source of high pressure liquid, said nozzle being positioned in said venturi to direct the discharge from said nozzle out of said venturi outlet port (col. 1, ll. 18-32; Fig. 1, Items 12, 28 and Fig. 11). Brooks further discloses the pump having an inlet and an outlet port, said pump serving as the source of high pressure liquid and providing said high pressure liquid at its outlet port and the pump accepts liquid from the holding tank (col. 6, ll. 50-60). Brooks also discloses the line is flexible and has a length that will permit said venturi to reach all areas of the floor of said tank and said nozzle is set at an angle with respect to the floor of the tank other than 90 degrees to provide a sideward thrust to the venturi to cause the venturi to move about the floor of said tank (Fig. 1, 11, Items 12, 28). Brooks discloses the apparatus having wheels to facilitate its movement about the floor of the tank (Fig. 1, Item 34).

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaeffer (US Patent No. 3,769,993).

Schaeffer discloses the source of high-pressure liquid (Fig. 1, Item 14), a venturi placed in the holding tank beneath the liquid facing generally downward (Fig. 4, Item 56 and 38), a line for carrying liquid connected to source of high pressure liquid (Fig. 1, Item 16, 18) and a nozzle (Fig. 4, Item 38). Schaeffer also discloses a pump submersed in the pool accepting liquid in the tank at its inlet (Fig. 1 and 2, Item 14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaeffer.

Schaeffer discloses fixing pipes at a determined distance above the floor of the tank (col. 1, ll. 49-56) and the Courts have upheld that making elements adjustable is obvious, *In re Stevens* 101 USPQ 148. Therefore, it would have been obvious to make the height of the pipes and venturi adjustable. Bolts are commonly used to adjust height, specifically to level objects such as tables and washing machines, and in this particular case it would be obvious to use bolts on the Schaeffer apparatus to provide an equal cleaning of the entire bottom of the pool/tank.

Claims 4, 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Schaeffer.

Brooks discloses the apparatus for cleaning a tank as disclosed in the above 102(b) rejection. Brooks does not disclose expressly the pump located in the pool, submersible and located beneath the liquid level. Brooks also does not disclose the apparatus having a flange to disperse the liquid. Schaeffer discloses the pump located in the pool and the pump is submersible and positioned in said holding tank beneath the surface level of the liquid in the

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pool (Fig. 1, 2, Item 14; col. 3, ll. 30-45). Schaeffer also discloses the apparatus comprising a flange to direct the outlet flow along the floor of the tank and to the sidewalls (Fig. 5, Item 64 and 65; col. 4, ll. 49-55).

Brooks and Schaeffer are analogous art because they are from the same field of endeavor, tank-cleaning apparatus. At the time of the invention, it would have been obvious to modify the structure shown by Brooks with the submerged pump and flange for the benefit of reducing the attention required during cleaning (col. 1, ll. 47).

Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Looper (US Patent No. 4,244,523).

Brooks discloses the tank cleaning apparatus shown above in the 102(b) rejection. Brooks does not disclose the interchanging nozzles or a motor to direct the nozzles. Looper discloses the apparatus further comprising means for connecting and disconnecting said nozzle to said line to permit interchanging nozzles adapted to provide different nozzle output sprays from said nozzles to remove different sediments and function in different liquid environments (col. 3, ll. 32-45; Fig. 1, 3 and 7-9). Looper also discloses the motor connected to the venturi and to said nozzle to set said nozzle to a plurality of angles other than 90 degrees as well as including 90 degrees with respect to the floor of said tank to permit said venturi to move in a plurality of directions and cover a wide area of the floor of said tank (col. 2, ll. 7-15).

Brooks and Looper are analogous art because they are from the same field of endeavor, tank-cleaning apparatus. At the time of the invention, it would have been obvious

to modify the structure shown by Brooks with the interchangeable and movable nozzles disclosed by Looper for the benefit of being able to fully clean various tank sizes and different materials (col. 3, ll. 41-45).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Carroll (US Patent No. 6,238,563).

Brooks discloses the tank cleaning apparatus shown above in the 102(b) rejection. Brooks does not disclose a valve controlled by a float. Carroll discloses a float used to turn a valve on and off at predetermined levels (col. 3, ll. 35-55; Fig. 2). Although these valves are not specifically stated, one of ordinary skill in the art would recognize that valves are used to control liquid flow.

Brooks and Carroll are analogous art because they are from the same field of endeavor, tank level monitoring. At the time of the invention it would have been obvious to modify the tank disclosed by Brooks with a float to monitor the fluid level for the benefit of making sure there were no leaks or overflows.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks and Looper as applied to claims 1 and 9-11 above, and further in view of Sedlacek (US Patent No. 6,702,038).

Brooks and Looper teach the tank-cleaning apparatus as shown above in the 102(b) and 103(a) rejections. Brooks and Looper do not disclose a motor powered by liquid under pressure. Sedlacek discloses a motor powered by liquid under pressure (col. 1, ll. 14-20).

Brooks, Looper and Sedlacek are analogous art because they are from the same field of endeavor, cleaning apparatus and parts. At the time of the invention it would have been obvious to modify the cleaning apparatus disclosed by Brooks and Looper with liquid powered motor because it is advantageous to use normal water-supply piping as a source of pressure fluid for manual and mobile equipment (col. 1, ll. 15-17).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilfong (US Patent No. 6,352,345) in view of Carroll.

Wilfong discloses a submersible pump (Fig. 1, Item 30), a discharge line (Fig. 1, Item 58), a venturi having a throat (Fig. 1, Item 38), a shunt line (Fig. 2, Item 36 where the liquid flows), a nozzle (Fig. 2, Item 66) and means to connect and disconnect the nozzle. Figs. 1 and 4 show different nozzles and therefore the nozzles could be changed. Wilfong does not disclose expressly valves or a means to measure the liquid level. Carroll discloses means to sense the level of liquid in a tank and valves as disclosed above in the Brooks/Carroll 103(a) rejection.

Wilfong and Carroll are analogous art because they are from the same field of endeavor, tank cleaning and monitoring. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the tank disclosed by Wilfong with a valve and level monitor for the benefit of avoiding leaks and/or spills in a tank.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not referred to are Moran (4828625), Roumagnac

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(4835809), Valentini (4859249), Wieringa (4941493), Goettl (4950393), Sloan (5037486), Erlich (5337434), Staples (5526989, 5645232, 6588684), Fukuda (5706539), Gilman (6615849) and Henkin (5985156), who teach tank-cleaning apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEH

A handwritten signature in black ink, appearing to read 'Michael E. Barr', with a large, sweeping underline.

**MICHAEL BARR
SUPERVISORY PATENT EXAMINER**